

REMARKS

In the Office Action, the Examiner rejected claims 1-5, 7, 8, 10, 12, 14, 17-20, and 25-28 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter; rejected claims 1-5, 7, 10, 12, 14, 17-20, and 22-28 under 35 U.S.C. § 103(a) as unpatentable over Chi et al. ("Context Query in Information Retrieval," Tools with Artificial Intelligence, 2002, 14th IEEE International Conference) (hereinafter "CHI") in view of Pant et al. (U.S. Patent No. 6,012,053) (hereinafter "PANT"); and rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over CHI, PANT, and Mukherjee et al. ("Automatic Discovery of Semantic Structures in HTML Documents," International Conference on Document Analysis and Recognition, 2003) (hereinafter "MUKHERJEE").

Applicants amend claims 1, 3, 4, 8, 10, 12, 14, 17-20, and 23-28 to improve form. Claims 1-5, 7, 8, 10, 12, 14, 17-20, and 22-28 remain pending. Applicants traverse the Examiner's rejections under 35 U.S.C. §§ 101 and 103.

REJECTION UNDER 35 U.S.C. § 101

In paragraphs 3 and 4 of the Office Action, the Examiner rejected claims 1-5, 7, 8, 10, 12, 14, 17-20, and 25-28 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter.

Without acquiescing in the Examiner's rejection, but solely to expedite prosecution, Applicants have amended the claims to address the Examiner's concerns. Applicants submit that the amended claims are clearly directed to statutory subject matter under 35 U.S.C. § 101.

Accordingly, Applicants respectfully request the reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. § 101.

REJECTION UNDER 35 U.S.C. § 103 BASED ON CHI AND PANT

In paragraph 6 of the Office Action, the Examiner rejected claims 1-5, 7, 10, 12, 14, 17-20, and 22-28 under 35 U.S.C. § 103(a) as allegedly unpatentable over CHI and PANT. Applicants traverse the rejections.

Independent claim 1, for example, is a method, performed by a device, that comprises identifying, using a processor associated with the device, an implicitly defined semantic structure in a document, where a plurality of rules are associated with the implicitly defined semantic structure, and where the semantic structure includes a list having a header and a plurality of items associated with the header; determining, using the processor, a location of a first term and a location of a second term within the list; selecting, using the processor, one of the plurality of rules based on a relationship of the locations of the first and second terms within the implicitly defined semantic structure, where a first rule of the plurality of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items, where a second rule of the plurality of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items, and where a third rule of the plurality of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items; determining, using the processor, a distance value between the first and second terms

using the selected rule; and outputting, using the processor, the distance value to rank the document for relevancy to a search query that includes the first term and the second term.

CHI and PANT, whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 1. For example, CHI and PANT do not disclose or suggest determining, using the processor, a distance value between first and second terms using a rule selected from a plurality of rules based on a relationship of the locations of the first and second terms within an implicitly defined semantic structure, where a first rule of the plurality of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items, where a second rule of the plurality of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items, and where a third rule of the plurality of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items, as recited in claim 1.

The Examiner alleged that CHI discloses the second and third rules, and cited rules 1, 5, and 6 of CHI for support (Office Action, pages 3-4). The Examiner admitted that CHI does not disclose the first rule and alleged that PANT discloses the first rule and cited column 2, lines 4-24, and column 12, lines 33-50, of PANT for support (Office Action, page 4). The Examiner also admitted that CHI does not disclose or suggest determining a distance value between the first and second terms using the selected rule, and alleged that PANT discloses this feature and cited column 2, lines 4-24, of PANT for

support (Office Action, page 4). Applicants submit that the disclosures of CHI and PANT provide no support for the Examiner's allegations.

Even assuming, for the sake of argument, that CHI and/or PANT can reasonably be interpreted as disclosing the first, second, and third rules (points that Applicants do not concede), CHI and PANT, whether taken alone or in any reasonable combination, do not disclose or remotely suggest determining, using the processor, a distance value between first and second terms using a rule selected from a plurality of rules based on a relationship of the locations of the first and second terms within an implicitly defined semantic structure, where a first rule of the plurality of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items, where a second rule of the plurality of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items, and where a third rule of the plurality of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items, as recited in claim 1.

CHI discloses heuristic rules for determining whether two terms in a document have an inclusion relationship (section 4). As the Examiner admitted, CHI is completely silent with regard to determining a distance value between first and second terms, located within an implicitly defined semantic structure (i.e., a list having a header and a plurality of items associated with the header), using a selected rule. PANT also does not disclose or suggest these features.

At column 2, lines 4-24, PANT discloses:

One factor which may be used to affect the relevance score of an item includes the location of a search term in the item. For example, with structured documents such as those written in SGML, HTML, or other markup languages, the structural information about the document may enclose search terms and may result in a document being considered more relevant than another. The position of search terms in the body of a document, called salience, also may be used. For example, a search term appearing in the first sentence of the first paragraph of a field in a document may have greater salience than the same term found in the last sentence of a last paragraph of the same field. The frequency of occurrence of a search term in an item, or of the search term in all items, the number of search terms found in an item, the ordering of search terms in the item, the distance between terms in a item, and prefixed instance or stemming are some of the factors which may be used to compute a relevance score for a given result returned by the search engine. Other possible factors include, but certainly are not limited to, the recency of the item or the location of the item within a file system or directory of files.

In this section, PANT discloses that the location of a search term within an item (i.e., a document) is used to determine the relevance score for the item. PANT discloses that the position of search terms in the body of an item, the frequency of occurrence of a search term in the item, the number of search terms found in the item, the ordering of search terms in the item, the distance between terms in the item, and prefixed instance or stemming are some factors used to compute the relevance score for the item. While PANT discloses determining the distance between terms in an item, PANT does not disclose or suggest determining a distance value between terms, which are both located within a list, using a rule that is selected from a plurality of rules based on where the terms occur within the list. Rather, PANT discloses that a distance is computed between every instance of one word and every instance of the other word of a pair of search terms (col. 12, lines 39-41). PANT does not disclose anything similar to determining a distance

value between terms occurring within a list based on rules particular to where the terms occur within the list.

Thus, PANT does not disclose or suggest determining, using the processor, a distance value between first and second terms using a rule selected from a plurality of rules based on a relationship of the locations of the first and second terms within an implicitly defined semantic structure, where a first rule of the plurality of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items, where a second rule of the plurality of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items, and where a third rule of the plurality of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items, as recited in claim 1.

For at least these reasons, Applicants submit that claim 1 is patentable over CHI and PANT, whether taken alone or in any reasonable combination. Claims 2-5 and 7 depend from claim 1 and are, therefore, patentable over CHI and PANT for at least the reasons given above with respect to claim 1.

Independent claims 10, 12, 22, and 25 recite features similar to (yet of possibly different scope than) features recited in claim 1. Claims 10, 12, 22, and 25 are, therefore, patentable over CHI and PANT, whether taken alone, or in any reasonable combination, for at least reasons similar to the reasons given above with respect to claim 1.

Claims 14 and 17-20 depend from claim 12 and are, therefore, patentable over

CHI and PANT for at least the reasons given with respect to claim 12. Claims 23 and 24 depend from claim 22 and are, therefore, patentable over CHI and PANT for at least the reasons given with respect to claim 22. Claims 26-28 depend from claim 25 and are, therefore, patentable over CHI and PANT for at least the reasons given with respect to claim 25.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5, 7, 10, 12, 14, 17-20, and 22-28 based on CHI and PANT.

REJECTION UNDER 35 U.S.C. § 103 BASED ON CHI, PANT, AND MUKHERJEE

In paragraph 7 of the Office Action, the Examiner rejected claim 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over CHI, PANT, and MUKHERJEE.

Claim 8 depends from claim 1. Without acquiescing in the Examiner's rejection with respect to claim 8, Applicants submit that the disclosure of MUKHERJEE does not cure the deficiencies in disclosures of CHI and PANT identified above with respect to claim 1. Claim 8 is, therefore, patentable over CHI, PANT, and MUKHERJEE, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 8 under 35 U.S.C. § 103 based on CHI, PANT, and MUKHERJEE.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of the pending claims.

As Applicants' remarks with respect to the Examiner's rejections overcome the rejections, Applicants' silence as to certain assertions by the Examiner in the Office Action or certain requirements that may be applicable to such assertions (e.g., whether a reference constitutes prior art, reasons for modifying a reference and/or combining references, assertions as to dependent claims, etc.) is not a concession by Applicants that such assertions are accurate or that such requirements have been met, and Applicants reserve the right to dispute these assertions/requirements in the future.

If the Examiner believes that the application is not now in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned to discuss any outstanding issues.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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